CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A recording method for an optical disk drive, comprising the steps of:

   detecting at least one unstable signal source of the optical disk drive, wherein the unstable signal source is selected from the group including a level of a focusing error signal, a level of a tracking error signal, a wobble synchronization pattern loss, an error rate of demodulating a wobble signal and a frequency of buffer under-run occurrence;

   ceasing recording if the detected value exceeds a preset threshold value;

   decreasing the rotation speed of the optical disk drive; and

   resuming recording with the decreased rotation speed.

2. The recording method for an optical disk drive in accordance with Claim 1, further comprising the step of detecting whether the optical disk drive is recording before the unstable signal source is detected.

3. The recording method for an optical disk drive in accordance with Claim 1, further comprising the step of ensuring that the recording is ceased after the operation of stopping recording is instructed.

4. The recording method for an optical disk drive in accordance with Claim 1, wherein ceasing recording and decreasing the rotation speed of the optical disk drive are controlled by a microprocessor.

5. A recording apparatus for an optical disk drive, comprising:
a driver for controlling the rotation speed of the optical disk drive;
a servo signal generation unit for generating a level of a focusing error signal, a level of a tracking error signal and a wobble synchronization pattern loss;
a microprocessor, comprising:
a detection mechanism for detecting an error rate of demodulating a wobble signal and a frequency of buffer under-run occurrence;
a recording termination control mechanism for ceasing

recording if the output of the detection mechanism or the servo signal generation unit exceeds a preset threshold value and the recording is underway; and

a recording speed adjustment mechanism for setting parameters with a lower rotation speed if the output of the detection mechanism or the servo signal generation unit exceeds a preset threshold value and the recording is ceased by the recording termination control mechanism; and

a digital signal processor for converting the parameters with the lower rotation speed into a driving signal that instructs the driver to decrease the rotation speed of the optical disk drive.

6. The recording apparatus for an optical disk drive in accordance with Claim 5, wherein the servo signal generation unit comprises:

a signal generator connected to an optical pickup head of the optical disk drive for generating the focusing error signal, the tracking error signal and the wobble signal;

a level detector for detecting the levels of the focusing error

signal and the tracking error signal; and

a demodulation unit for demodulating the wobble signal.

7. The recording apparatus for an optical disk drive in accordance with Claim 5, further comprising an encoder connected to the microprocessor.

8. The recording apparatus for an optical disk drive in accordance with Claim 7, further comprising a buffer connected to the encoder.

9. The recording apparatus for an optical disk drive in accordance with Claim 5, wherein if the output of the detection mechanism or the servo signal generation unit exceeds a preset value and the recording is ceased, the recording termination control mechanism remains at the ceased status.